

ABSTRACT OF THE DISCLOSURE

A data processing apparatus for embedding second digital data in first digital data comprises: bit-swap means for bit-swapping target data comprising a predetermined number of bits within the first digital data; predicting means for outputting a prediction value which predicts a value corresponding to the target data from marginal data surrounding the target data; sorting means for sorting target data subjected to the bit-swapping according to the prediction margin of error value between a prediction value output by the predicting means and respective values corresponding to target data subjected to the bit-swapping; correction code output means for outputting correction code according to target data subjected to the bit-swapping that has been sorted by the sorting means; and embedded data output means for outputting, as embedded data, one of the target data subjected to the bit-swapping that has been sorted by the sorting means, according to the second digital data.